

WHAT IS CLAIMED IS:

1. A apparatus for converting to six-channel output from two-channel and using a MIC_IN connector, a LINE_IN connector, and a LINE_OUT connector for outputting six-channel sound effect, comprising:
 - 5 a coder/decoder (CODEC) for coding or decoding sound signals so as to output central channel signal, low-frequency-effect signal, surround left signal, surround right signal, left channel signal, and right channel signal, input microphone signal, LINE_IN_L and LINE_IN_R signals, and generate control signal;
 - 10 a MIC_IN connector switch for switching the MIC_IN connector as an input means or an output means based on the control signal;
a first filter for coupling the central signal and the low-frequency-effect signal to the MIC_IN connector;
 - a second filter for coupling the microphone signal inputted by the
15 MIC_IN connector to the CODEC;
 - a third filter for sending LINE_IN_L and LINE_IN_R signals inputted by the LINE_IN connector to the CODEC; and
a resistor circuit for coupling the surround left signal and the surround right signal to the LINE_IN connector for output via the third filter.
- 20 2. The apparatus as claimed in claim 1, further comprising a microphone bias circuit for biasing the microphone signal inputted by the MIC_IN connector with a microphone bias signal.
3. The apparatus as claimed in claim 2, wherein the MIC_IN connector switch comprises a first switch and a second switch, so that, in

response to the control signal in a low state, the first switch is operative to send the biased microphone signal to the MIC_IN connector and the second switch is operative to send the microphone signal fed from the MIC_IN connector to the CODEC via the second filter.

5 4. The apparatus as claimed in claim 3, wherein the first switch is comprised of a third N channel metal oxide semiconductor (NMOS) transistor and a fourth NMOS transistor so that the third NMOS transistor is turned on and the fourth NMOS transistor is turned off for biasing the inputted microphone signal in response to the low control signal.

10 5. The apparatus as claimed in claim 3, wherein the second switch is comprised of a first NMOS transistor and a second NMOS transistor so that both the first and the second NMOS transistors are turned on for sending the inputted microphone signal to the second filter in response to the low control signal.

15 6. The apparatus as claimed in claim 1, wherein the CODEC further comprises a plurality of digital-to-analog converters (DACs) corresponding to the central channel signal, the low-frequency-effect signal, the surround left signal, the surround right signal, the left channel signal, and the right channel signal, respectively, and a plurality of analog-to-digital converters
20 (ADCs) corresponding to the microphone signal, the LINE_IN_L signal, and the LINE_IN_R signal, respectively.

7. The apparatus as claimed in claim 6, wherein, in a six-channel output mode, the CODEC enables the DACs corresponding to the central channel signal, the low-frequency-effect signal, the surround left signal, the

surround right signal, the left channel signal, and the right channel signal, respectively.

8. The apparatus as claimed in claim 7, wherein, in a six-channel output mode, the CODEC disables the ADCs corresponding to the microphone signal, the LINE_IN_L signal, and the LINE_IN_R signal, respectively.

9. The apparatus as claimed in claim 5, wherein, in a non-six-channel output mode, the CODEC disables the DACs corresponding to the central channel signal, the low-frequency-effect signal, the surround left signal, the surround right signal, the left channel signal, and the right channel signal, respectively.

10. The apparatus as claimed in claim 9, wherein, in a non-six-channel output mode, the CODEC enables the ADCs corresponding to the microphone signal, the LINE_IN_L signal, and the LINE_IN_R signal, respectively.